

MODIS Technical Team Meeting
Thursday, October 23, 2003
GSFC Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Ed Masuoka, Jack Xiong, Gary Alcott, Dorothy Hall, Bobby Barnes, Barbara Conboy, Chris Justice, Wayne Esaias, and Bill Barnes, with Yolanda Harvey taking the minutes.

1.0 Upcoming Meetings

- MODIS Science Team Meeting, Baltimore-Washington International Airport (BWI) Marriott — POSTPONED – Date TBD
- EOS Science Working Group on Data (SWGD), November 5-6, Greenbelt Marriott, MD
<http://swgd.gsfc.nasa.gov/schedule.htm>
- NPP Science Team Kickoff Meeting, November 4-6, 2003. Annapolis, MD.
- 2003 Fall AGU Meeting. December 8-12, San Francisco, California, USA. Abstracts deadlines past.
<http://www.agu.org/meetings/fm03/>

2.0 Meeting Minutes

2.1 General Discussion

Bob Barnes reported that Esaias and Chuck McClain discussed the MODIS/SeaWiFS calibration issue raised last week. Esaias said that they had a very open discussion concerning using SeaWiFS to validate MODIS SST data in lieu of MOBY as a possible alternative to the current validation scheme. However, Esaias said that he felt that further direction was needed from HQ before making any commitments.

Salomonson mentioned that Chris Lynnes and Jacqueline LeMoigne have submitted a DDF proposal to do on-the-fly geolocation for MODIS data, and wondered if anyone was cognizant of their approach. Alcott said that Lynnes had talked to Robert Wolfe and Chris Justice. Salomonson said that doing geolocation on the fly would be a good thing, especially if we could get beyond the 150m specification. He was curious if Lynnes could go as far with this method as Wolfe has done with the current geolocation scheme and hopes to be able to find time to discuss the approach with LeMoigne and Lynnes. Note, Masuoka checked with Wolfe and it appears that the best approach if one wanted more accurate geolocation for direct readout systems would be to have the predicted ephemeris generated more often than it currently is. The method proposed by LeMoigne is not significantly different than what is being done by PGE 66 now so the results would not improve on existing geolocation accuracies.

On a separate geolocation related topic, Masuoka noted that Gene Feldman has asked for the latest geolocation software in order to implement it, rather than using the direct readout version. Masuoka sent an email to Gene with the URL for the software on Pat Coronado's site (which is the latest version running in production).

Salomonson reported that the GAO/MAO want to introduce a cloud winds product that is making an improvement in the performance of ECMWF (European Center for Medium

Range Weather Forecasting), but they would have to get the data within 3.5 hours, which is hard to do. He said that they're in the process of making arrangements with EUMETSAT or others using Direct Readout to make the desired timeline.

2.2 Instrument Status

2.2.1 Terra MODIS

Xiong reported on two issues. The first is the Terra MODIS SSR superset issue; they got one superset from MISR and installed it on Monday (October 20, 2003). The issue left there is when to recycle the SSR supersets.

The second issue he reported on was the SRCA Terra test. During that test, they found an anomaly for several bands in the 1-watt spatial test, and cannot attribute the source. He sent the details and results of the test to Robert Drake for analysis. The anomaly doesn't affect calibration, but MCST still wants to make sure that all onboard calibrators are working properly.

2.2.2 Aqua MODIS

Xiong reported that the Aqua MODIS is operating normally, and on Monday, October 27, 2003, there will be a meeting to discuss the schedule for reprocessing Aqua Oceans data.

2.3 DAAC

Alcott reported that things going very well, with only occasional glitches in forward processing. Oceans reprocessing proceeds quickly at over 17x. Because Land reprocessing has completed, the DAAC has changing the polling intervals on the PDR server, so they're reprocessing faster than ever. The only concern there is reprocessing the earlier data days will require more data ingestion, which might slow things down. There is also talk about recalibrating to the current reprocessing rate.

Distribution is also going well. The backlog is at 6.6 TB; it went up slightly because of two new large (over 1 TB each) orders. Negotiations with the Australian group on their large order are going well; they've lowered the amount of data that they want. Greg Leptoukh is working with them and other large data-orderers to make sure that they get what they need.

Alcott reported that in consideration of the consolidations they are going to have to do, the DAAC has decided to go with a smaller number of higher-powered machines. They are also going to restrict the amount of free media that users get to \$250 per user. Some users are already supplying their own media. Esaias asked what kinds of media they're using, and Alcott replied that it's mostly DVD or DLT tapes, though usually DVD.

2.4 MODAPS

Masuoka reported that they will be done producing Ocean products from 2001 at the end of October. He said that Mike Teague would send a note to Esaias and Salomonson when the 2001 products were finished. The MODAPS system is currently running Oceans reprocessing at 18x, but that may go significantly higher when they bring 37 dual processors systems online early next week. Masuoka hopes to have an accurate benchmark of the system performance by the PIP meeting on November 4th. The goal he hopes to reach is the production of 1 month of Ocean products in a day. Alcott asked Esaias if the users evaluating the reprocessed data are keeping up with the data flow, and

Esaias said that he hasn't heard from them. Esaias asked Masuoka if MODAPS will have enough disk to keep data online until it can be shipped to the users evaluating it if the production reaches 30x. Masuoka said he and MODAPS operations will monitor the data shipment, but if production does reach 30x, then disk space may become a problem at the end user site. In turn, this might in turn result in MODAPS having to slow down as well.

Masuoka reported that Miami will begin pulling the L1A subset off MODAPS disks early next week. If they report no problems, the DAAC can stop exporting the Level 1A subset to Miami from forward processing. Once the process is working for Miami then MODAPS will work with SeaWiFS to get them the Level 1A subset data as well.

Masuoka reported that his system administrators will install a firewall in front of the MODIS IOT systems since these systems were not up to date on their operating system patches and thus were vulnerable to being hacked. The custom software from Raytheon, which runs on the systems, has made it difficult for the MCST system administrator to upgrade these systems. If the firewall introduces any problems the IOT team will use other systems in the Mission operations area while the SDST system administrators sort out the issues.

Masuoka reported that the Level 1B that MCST will deliver by November 15th will not have a band-to-band registration fix for Aqua because there seems to be no interest in doing that fix at L1B, and there is not sufficient time to get it into the delivery. Salomonson said that if there's going to be an Aqua band-to-band fix, it should only be done to the products (L2 and above) rather than the L1B.

2.5 Oceans

Esaias reported that the Oceans group is preparing for the year 2003 data reprocessing test. The current plan is to reprocess the January through March 2003 data, but would rather let that end date stretch back as far as possible. The radcors will be in next week, and the results of the test in the next 10 or so days, but if we could reprocess a month's worth of data in one day, that would be great. Alcott noted that the limiting factor is that 6 months of data need to be preloaded at all times. Esaias said that if we're going to do so, Miami wants the radcors to be of really high quality, and so we'll need a decision soon. Masuoka noted that year 2002 data will be finished by the end of November. Salomonson said that we have a little time yet before making a decision.

2.6 Land

Justice reported that the Land group is pulling material together for the Aqua session at the upcoming AGU meeting, especially material for a press release.

Running will be holding another outreach session next year, but will have to wait until funding issues are resolved.

Justice reported that there was a Land Data Group phone call, where he learned that PIs are getting to help with porting MODIS science software downloaded from Pat Coronado's web site. He thought that if we make the available to the public, there should also be some sort of helpdesk for porting the software. Esaias said that he

thought this applies to all disciplines. Salomonson said that this subject perhaps should be discussed with HQ.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.

Status: Open.

3.2.2 PIP to develop list of items to go into work plan for the new contract (EMD).

Status: Open.

3.2.3 Ed Masuoka to invite a NOAA delegate to the weekly MODIS Tech Team meetings or the PIP meetings.

Status: Open. Masuoka sent the invitation.

3.2.4 Kempler to bring back some proposals for how the disciplines can deal with the DAAC distribution problem.

Status: Open.

3.2.5 Masuoka to pursue MODAPS sending L1A Ocean subsets to University of Miami.

Status: Open.